

Application No.: 10/569,222
Response dated: March 3, 2009
Response to Office Action mailed December 3, 2008

REMARKS/ARGUMENTS

This is responsive to the Office Action dated April 16, 2009. A response is due by July 16, 2009, without an extension of the time for responding to the Office Action. Therefore, a request for a one-month extension of the time for response is enclosed herewith.

Claims 15-22 and 24-32 are now pending in this application.

Claims 15-22 and 24-32 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over Annemaier et al. (US Patent No. 5,496,881) in view of Cusack et al. (US Patent No. 6,150,447).

All other prior rejections have been withdrawn by the Examiner.

The present invention is directed to a halogen-free fire retardant coating composition which includes a film forming polymer and an inorganic fire retardant material which is a combination of fire resistant filler particles and a metal stannate, metal hydroxyl stannate, or combination thereof, where the overall pigment volume concentration or PVC of the composition is from 75 to 97% and where the composition has a medium shear viscosity measured at 25°C of from 0.6 Pa.s to 6.0 Pa.s. The Examiner has commented that "water can be added to achieve any desired viscosity." But, that misses the point with the present invention wherein the coating composition has a viscosity which will provide the appropriate flowability while achieving the high levels of PVC.

Annemaier is directed to an aqueous composition for forming fire-proof coatings and caulking. These coating and caulks are different from Applicants paints, lacquers and varnishes, as expressed by the medium shear viscosity. The Examiner has noted that Annemaier disclose an aqueous thickener solution comprising 25% vinyl acetate homopolymer, 15% aluminum hydroxide, 10% magnesium hydroxide, 3.5% zinc hydroxystannate, 13.5% talc, and 9% kaolin in Example 3 and coatings in claims 32 and 33. But, Annemaier does not teach Applicant's claimed pigment volume concentration (PVC) of 75 to 97%. At best, Annemaier teaches in column 3, lines 41-45, that the flameproofing agent is present in a quantity of 10 to 60% by weight. Attached hereto is Attachment A which is a table showing the calculation of the PVC in Example 3 of Annemaier, and, as can be seen, the result is a PVC of 51.7% which is outside of Applicant's limitation of 75 to 97%. Therefore, Annemaier would not inherently have the properties of Applicant's claimed invention.

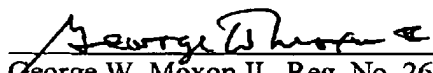
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Cusack is directed to fire-retardant material which is a particulate inorganic filler coated with a layer of divalent metal hydroxystannate or divalent metal stannate. The Examiner notes that Cusack reveal that when inorganic fillers are coated with a tin compound, the flame retardance of the filler increases in column 1, lines 38-42. Also noted is that aluminum hydroxide and magnesium hydroxide can be coated with sodium or potassium hydrostannate in column 1, lines 49-57. In column 2, lines 8-17, it is noted that in a polymer material, the coated fire-retardant filler can be present in a concentration of 5-400% by weight based on the weight of the polymeric material. Other than suggesting that the particles of Cusak can be used as flame retardant particles, there are no specific uses suggested and certainly no teachings to use them in a way that the PVC of the composition would be in the range claimed by Applicants. Further, the disclosure of Cusack would not cure any of the deficiencies of Annemaier. Therefore, the presently claimed invention would not be obvious from any combination of these references. So, reconsideration and withdrawal of the § 103 rejection is respectfully requested.

In view of the above arguments, reconsideration and withdrawal of the rejections and allowance of claims 15-22 and 24-32 are respectfully requested.

Should the Examiner wish to discuss any of the foregoing in more detail, the undersigned attorney would welcome a telephone call.

Respectfully submitted,


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Attachment A

	% w/w	% solids	dry density	pigment vol	total vol
Example 3					
vinyl acetate polymer dispersion	25	60	1.26		0.119
water	14.4	0	0		
hydroxymethyl cellulose	1	100	1.34		0.007
preservative	0.3	100	1.09		0.003
potassium triphosphate	0.7	100	2.54		0.003
mineral fibres (estimated density)	3.5	100	2	0.018	0.018
polyacrylonitrile fibres	1	100	1.17	0.009	0.009
trioctyl phosphate	4.5	100	0.92		0.049
Aluminium Hydroxide	15	100	2.4	0.063	0.063
Magnesium Hydroxide	10	100	2.4	0.042	0.042
Zinc Hydroxystannate	3.5	100	3.3	0.011	0.011
talcum	13.5	100	2.9	0.047	0.047
calcined kaolin	9	100	2.6	0.035	0.035
Total	101.4	1160	23.92	0.222	0.403
pigment vol	pvc=	55.09%			
total vol					
% flame retardants w/w		28.11%			
=					
pvc from FR		28.49%			
% of pvc from FR		51.70%			

JUL 16 2009

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/369,222	12/07/2006	Susan Mary Horley	51110(A)	9418

38157 7590 04/16/2009
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EXAMINER

SZEKEL V. PETER A

ART UNIT	PAPER NUMBER
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1796

MAIL DATE	DELIVERY MODE
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04/16/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DOCKETED

APR 21 2009

Debbie Lowe

Office Action Summary	Application No. 10/569,222		Applicant(s) HORLEY ET AL.	
	Examiner Peter Szekely		Art Unit 1796	

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 03 April 2009.

2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 15-22 and 24-32 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 15-22 and 24-32 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some * c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ 5) <input type="checkbox"/> Notice of Informal Patent Application 6) <input type="checkbox"/> Other: _____
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DETAILED ACTION***Claim Rejections - 35 USC § 103***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 15-22 and 24-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Annemaier et al. 5,496,881, in view of Cusack et al. 6,150,447.
3. The rejection is maintained in view of the "Response to Arguments" set forth below.

Response to Arguments

4. Applicant's arguments filed 4/3/09 have been fully considered but they are not persuasive. The primary reference discloses in claim 1 60% by weight of flameproofing agents, and 27.5% inorganic fibers. The flameproofing agents may comprise a blend of aluminum hydroxide and zinc stannate or zinc hydroxystannate (column 4, lines 13-15). The composition further comprises fillers (claim 20). The amount of filler is not claimed, but Examples 1-3 show 3.35% and 14.4% calcium carbonate and 9% calcined kaolin respectively. The composition requires only 5% resin and 0.1% plasticizer. The Examiner does not know the exact densities of the solid ingredients, but at 94.9% solids by weight the PVC should be around 82%. Cusack et al. is cited only to show that coating metal hydroxides with stannates is known and obvious. Water can be added to achieve any desired viscosity. All properties are inherent in the composition.
5. All other rejections are withdrawn by the examiner in light of applicants' response.

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Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Szekely whose telephone number is (571) 272-1124. The examiner can normally be reached on 6:10 a.m.-4:40 p.m. Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter Szekely/
Primary Examiner, Art Unit 1796

/P. S./
Primary Examiner, Art Unit 1796
4/14/09